

INFORMATION ITEM

Watermaster Quarterly Update

Summary: Delta Watermaster Michael Patrick George will present a quarterly report as required by the Delta Reform Act (Water Code §85230(d)). Topics will include the Delta Consumptive Use study, a status update on the Bay-Delta Water Quality Control Plan, implementation of Delta diversion measurements required by recent legislation, and a discussion of climate change adaptation in the Delta.

Background

The State Water Resources Control Board (Water Board), as the State's principal water resources regulatory agency, has statutory authority to implement and enforce many types of regulatory policies and recommendations that help to implement the Delta Plan's policies and recommendations. Water Code section 85230(d) directs the State's Delta Watermaster to submit regular reports to the Water Board and to the Council on water issues.

At today's meeting, Mr. George will update the Council on key initiatives, including the status of a Council-funded study of consumptive water use in the Delta, a status update on the Bay-Delta Water Quality Control Plan, implementation of Delta diversion measurements required by recent legislation, and climate change adaptation in the Delta.

Consumptive Use Study

The Delta is both a transfer point for water stored in reservoirs on upstream tributaries and a source of otherwise free-flowing water for in-Delta water-rights holders. While the amount of water diverted from the Delta by the State and federal water projects is well known, less is known about the amount of water taken and consumptively used (not otherwise returned to the Delta in forms such as waste flow or runoff) by local in-Delta diverters.

Given the State's system of cascading water rights, in which upstream return flows are factored into downstream water rights, measuring and understanding consumptive use within the Delta is important not only to farmers but also to water facility managers, water rights regulators, and to those seeking to protect the Delta's human and natural ecosystem.

In February 2015, the Delta Watermaster convened State and federal agencies (including the Council) as well as a large number of water users inside and outside of the Delta to jointly sponsor a rigorous comparative investigation of the several methods for measuring consumptive use. Led by the Center for Watershed Sciences at the

University of California, Davis (UC Davis), the study investigated calibration of a suite of methods to unique settings within the Delta, and assessed the cost, effort, and reliability of applying each method. It covers the entire legal Delta, plus a small amount of surrounding areas. Last October, a workshop bringing together all seven of the research teams was held in UC Davis to finalize the study results. Council staff have been involved in reviewing and commenting on the study methods and results. The report and the appendices is expected to be published in a journal of peer-reviewed science in the next few months. This effort is partially funded by the Delta Stewardship Council.

Bay-Delta Water Quality Control Plan

The Bay-Delta Water Quality Control Plan (Plan) identifies the beneficial uses of the Bay-Delta, water quality objectives for the reasonable protection of those beneficial uses, and a program of implementation for achieving the objectives. The Plan, when implemented, determines the amount and timing of water entering and moving through the Delta. The Delta Plan identifies the importance of adoption of Sacramento-San Joaquin Delta and tributary flow objectives necessary to achieve the coequal goals through its administrative performance measures (ER R01-01 and ER R01-02).

The Water Board is in the process of developing and implementing updates to the Bay-Delta Plan. Phase I involves updating San Joaquin River flow and southern Delta water quality requirements included in the Bay-Delta Plan. Phase II includes several components: new inflow requirements for the Sacramento River, its tributaries, and eastside tributaries to the Delta (the Mokelumne, Calaveras, and Cosumnes rivers); new and modified Delta outflow requirements; new requirements for cold water habitat; new and modified interior Delta flow requirements; recommendations for complementary ecosystem protection actions that others should take; and adaptive management, monitoring, evaluation, special study, and reporting provisions.

In March the Water Board is expected to release the final Substitute Environmental Document (SED), including responses to public comments, and final proposed Phase I changes to the Bay-Delta Plan, with adoption in mid-2018.

Phase II proposed changes and a corresponding draft SED also are expected later this year.

Delta Diversion Measurements

Legislation passed in 2015 (SB 88) requires those claiming the right to divert more than 10 acre-feet of water per year to measure and report the timing, rate, and volume of their water diversions to the Water Board. Combined with results from the Consumptive Use Study, diversion measurements will provide water managers and users with a clearer picture of water use in the Delta and enable them to better manage flows especially during environmentally critical times of the year.

For many in the Delta, diversion measurement can be complicated because debris in the water clogs intakes and many diversions occur through siphons rather than pumps, which makes metering more difficult. To help address this, the Delta Watermaster

convened a Delta Diversion Measurement Consortium to work through these issues and ensure accurate and comprehensive reporting. He will discuss the work of the consortium and progress in Delta diversion measurement.

Climate Change Adaptation

The Delta could undergo many changes due to climate change and sea level rise in the decades ahead. The potential impacts include an increased risk of levee failure, loss of agricultural land and productivity, loss of wetlands, reduced water quality, contamination of groundwater supplies, more water dedicated to meeting water quality standards, biodiversity shifts, increased vulnerability to invasive species, and changes to State Water Project and Central Valley Project operations.

The Watermaster will discuss the implications of climate change for farming and water supply in the Delta and some of the ways agencies and residents can address them.

Fiscal Information

Not applicable.

List of Attachments

Attachment 1: PowerPoint presentation (to be provided at the Council meeting).

Contact

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